

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY. DOCKET NO.
VANM1 59.001AUSAPPLICATION NO.
09/574,626

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INFORMATION DISCLOSURE STATEMENT
BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

APPLICANT
Remacle et al.FILING DATE
May 19, 2000GROUP
1631

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	1	5,744,305	04/28/98	Fodor et al.		

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	2	0 619 321 A1	12/10/94	EPO			
	3	WO 90/15070	12/13/90	PCT			
	4	WO 92/10588	06/25/92	PCT			
	5	WO 95/11995	05/04/95	PCT			
	6	WO 97/10365	03/20/97	PCT			
	7	WO 99/35499	07/15/99	PCT			

EXAMINER
INITIAL

OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)

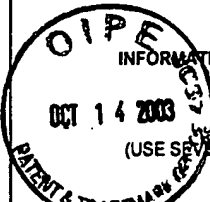
A	8	Danscher et al., (1983) <u>Light Microscopic Visualization of Colloidal Gold on Resin-embedded Tissue</u> , The Journal of Histochemistry and Cytochemistry, Vol. 31, No. 12, pp. 1394-1398
	9	Hayat, M.A. (1995) <u>Immunogold-Silver Staining. Principles, Methods, and Applications</u> , pp. 1-8, 40, 87-92
	10	Hauser-Kronberger et al., (1995) <u>Nonmicroscopical Colloidal Gold Autometallography (AMG_{AG}): Use of Immunogold-Silver Staining in Blot Staining and Immunoassay; Immunigold-Silver Staining: Methods and Applications</u> , pp. 289-296
	11	Erich et al., (1991) <u>HLA-DR, DQ and DP Typing Using PCR Amplification and Immobilized Probes</u> , European Journal of Immunogenetics, Vol. 18; p.p 33-55
	12	Moeremans et al., (1984) <u>Sensitive Visualization of Antigen-Antibody Reactions in Dot and Blot Immune Overlay Assays with Immunogold and Immunogold/Silver Staining</u> , Journal of Immunological Methods, Vol. 74; pp. 353-360
	13	Cremers et al., (1987) <u>Non-radioactive in situ hybridization</u> , Histochemistry Vol. 86, pp. 609-615
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A	15	Eliaou et al., (1992) <u>Generic HLA-DRB1 Gene Oligotyping by a Nonradioactive Reverse Dot-Blot Methodology</u> , Human Immunology, Vol. 35, pp. 215-222,

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FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. VANM1259.001AUS	APPLICATION NO. 09/574,626
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		FILING DATE May 19, 2000	GROUP 1631

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							YES	NO
<i>GA</i>	1	0 267 521 A2	05/18/88	EPO				

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	

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PTO/SB/08 Equivalent

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Multiple sheets used when necessary) SHEET 1 OF 4	Application No.	09/547,626
	Filing Date	May 19, 2000
	First Named Inventor	Remacle, Jose
	Art Unit	1631
	Examiner	Shubo (Joe) Zhou
	Attorney Docket No.	VANM159.001AUS

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name of Patentee or Applicant	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear

FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name of Patentee or Applicant	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ¹
JA	1	WO 89/11548	11-30-1989	Cetus Corporation		
JA	2	WO 98/04740	02-05-1998	North-Western University		
JA	3	EP 7 179 180	02-13-2002	Advanced Array Technol.		

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ¹
JA	4	BASELL, G.J. et al. (1994) "Single mRNAs visualized by ultrastructural <i>in situ</i> hybridization are principally localized at actin filament intersections in fibroblasts" <i>J. Cell Biol.</i> 126:863-876 (document O29 from the European opposition proceedings in the related European patent EP 1 179 180).	
JA	5	BRADA, D. et al. (1984) "Golden Blot" - Detection of polyclonal and monoclonal antibodies bound to antigens on nitrocellulose by protein A - gold complexes" <i>Analyt. Biochem.</i> 142:79-83 (document O32 from the European opposition proceedings in the related European patent EP 1 179 180).	
JA	6	DANSCHER, G. (1981) "Light and electron microscopic localization of silver in biological tissue" <i>Histochemistry</i> 71:177-186 (document O33 from the European opposition proceedings in the related European patent EP 1 179 180).	
JA	7	DANSCHER, G. (1981) "Localization of gold in biological tissue - a photochemical method for light and electron microscopy" <i>Histochemistry</i> 71:81-88 (document O34 from the European opposition proceedings in the related European patent EP 1 179 180).	
JA	8	DE BLAS, A.L. et al. (1983) "Detection of antigens on nitrocellulose paper immunoblots with monoclonal antibodies" <i>Anal. Biochem.</i> 133:214-219 (document O66 from the European opposition proceedings in the related European patent EP 1 179 180).	
	9	EP 00929132.9-2404 Protocol followed to monitor the hybridization of a concentration curve of CAB on microarrays (Figure 1) in 3 pages (document O18 from the European opposition proceedings in the related European patent EP 1 179 180).	
	10	EP 00929132.9-2404 Membrane Substrates, 4 CN Peroxidase Substrate System (Cat. No. 50-73-00, 50-73-04), p. 10. (document O16 from the European opposition proceedings in the related European patent EP 1 179 180).	
	11	Experiment 1 of the opponent: Signals from match and mismatch probes at different points in time in 2 pages (document O19 from the European opposition proceedings in the related European patent EP 1 179 180).	
	12	Experiment 1 of the patentee: Signal obtained before and after the silver precipitation of DNA labeled with gold particles on microarrays (in 2 pages) (document O67 from the European opposition proceedings in the related European patent EP 1 179 180).	

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SHEET 2 OF 4	Examiner	Shubo (Joe) Zhou
	Attorney Docket No.	VANM159.001AUS

NON PATENT LITERATURE DOCUMENTS

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	13	Experiment 2 of the opponent: time dependence of precipitation signal intensity for hybridization of one target against four different perfect matching probes in 3 pages (document O20 from the European opposition proceedings in the related European patent EP 1 179 180).	
	14	Experiment 2 of the patentee: Profiles of gene expression patterns on microarray: comparison of fluorescent and colorimetric (silver precipitate) detection (in 4 pages) (document O68 from the European opposition proceedings in the related European patent EP 1 179 180).	
	15	Experiment 3 of the patentee: Detection of a concentration curve of spotted biotinylated DNA on microarrays using metallic and non-metallic precipitate (in 3 pages) (document O69 from the European opposition proceedings in the related European patent EP 1 179 180).	
	16	Experiment 4 of the patentee: Gene differentially expressed on microarray: comparison of fluorescent and colorimetric (silver precipitate) detection (in 3 pages) (document O70 from the European opposition proceedings in the related European patent EP 1 179 180).	
GA	17	GORDON, J. EXPERT OPINION August 23, 2005, in 4 pages (document O63 from the European opposition proceedings in the related European patent EP 1 179 180).	
	18	GU, J. et al. (1995) "Quantitative evaluation of immunogold-silver staining" Chapter 7, <u>Immunogold-Silver Staining: Methods and Applications</u> , pp.119-136 (document O36 from the European opposition proceedings in the related European patent EP 1 179 180).	
	19	HACKER, G.W. (28 July 2005) Expert's Opinion (documents O30 in German and O30a English translation, from the European opposition proceedings in the related European patent EP 1 179 180)	
	20	HACKER, G.W. et al. (1997) "Immunogold-silver staining - autometallography: recent developments and protocols" <u>Analytical Morphology: Theory, Applications & Protocols</u> , Ed. Jiang Gu, Eaton Publishing, Chapter Two, pp. 41-54, A-3, A-2 (document O46 from the European opposition proceedings in the related European patent EP 1 179 180).	
	21	HACKER, G.W. et al. (1996) "Electron microscopical autometallography: immunogold-silver staining (IGSS) and heavy-metal histochemistry" <u>Methods: A Companion to Methods in Enzymology</u> 10:257-269 (document O45 from the European opposition proceedings in the related European patent EP 1 179 180).	
	22	HACKER, G.W. et al. (1995) "Autometallography and its use in electron microscopy" <u>BEDO</u> 26:129-143 (document O39 from the European opposition proceedings in the related European patent EP 1 179 180).	
	23	HACKER, G.W. et al. (1995) "Immunogold-silver staining detection of <i>in situ</i> molecular biological reaction sites" <u>Proceedings 3rd International Conference and Workshops, Modern Methods in Analytical Morphology</u> , pp. 64-70 (document O42 from the European opposition proceedings in the related European patent EP 1 179 180).	
	24	HACKER, G.W. et al. (1995) "Immunogold-silver staining detection of <i>in situ</i> molecular biological reaction sites" <u>Cell Vision</u> 2:247-253 (document O44 from the European opposition proceedings in the related European patent EP 1 179 180).	
GA	25	HACKER, G.W. et al. (1995) "Silver staining techniques, with special reference to the use of different silver salts in light and electron microscopical immunogold-silver staining" <u>Immunogold-Silver Staining: Methods and Applications</u> , Chapter Two, pp. 20-45 (document O43 from the European opposition proceedings in the related European patent EP 1 179 180).	

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NON PATENT LITERATURE DOCUMENTS

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GA	26	HACKER, G.W. et al. (1994) "Detection of nucleic acids by immunogold-silver staining (IGSS), Fluorescent-, peroxidase- and alkaline phosphatase-based methods" <i>Cell Vision</i> 1:71-73 (document O40 from the European opposition proceedings in the related European patent EP 1 179 180).	
	27	HACKER, G.W. et al. (1994) "In situ detection of DNA and mRNA sequences by immunogold-silver staining (IGSS)" <i>Cell Vision</i> 1:30-38 (document O41 from the European opposition proceedings in the related European patent EP 1 179 180).	
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	31	HOLGATE, C.S. et al. (1983) "Immunogold-silver staining: new method of immunostaining with enhanced sensitivity" <i>J.Histochem. Cytochem.</i> 31:938-944 (document O50 from the European opposition proceedings in the related European patent EP 1 179 180).	
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	33	JONES, A. et al. (1988) "Colloidal gold for the detection of proteins on blots and immunoblots" <i>Methods Molecul. Biol.</i> 3:441-479 (document O51 from the European opposition proceedings in the related European patent EP 1 179 180).	
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	35	LACKIE, P.M. et al. (1985) "Investigation of immunogold-silver staining by electron microscopy" <i>Histochemistry</i> 83:545-550 (document O52 from the European opposition proceedings in the related European patent EP 1 179 180).	
	36	LARSON, G. (1992) "Stabilized TMB substrate for horseradish peroxidase vs. 4-chloro-1-naphthol: a comparison on Western blots" <i>Promega Notes Magazine</i> 39:17., EP 00929132.9-2404 (document O17 from the European opposition proceedings in the related European patent EP 1 179 180).	
	37	MOERMANS, M. et al. (1985) "Sensitive colloidal metal (gold or silver) staining of protein blots on nitrocellulose membranes" <i>Anal. Biochem.</i> 145:315-321 (document O54 from the European opposition proceedings in the related European patent EP 1 179 180).	
	38	NESPOLO, A. et al. (1989) "Immunoblotting techniques with pictogram sensitivity in cerebrospinal fluid protein detection" <i>Electrophoresis</i> 10:34-40 (document O55 from the European opposition proceedings in the related European patent EP 1 179 180).	

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SHEET 4 OF 4		

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A	39	PATEL, N. et al. (1991) "A silver enhanced, gold labeled, immunosorbent assay for detecting antibodies to rubella virus" <i>J. Clin. Pathol.</i> 44:334-338 (document O56 from the European opposition proceedings in the related European patent EP 1 179 180).	
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A	49	TOWBIN, H. et al. (1984) "Immunoblotting and dot immunobinding - current status and outlook" <i>J. Immunol. Methods</i> 72:313-340 (document O65 from the European opposition proceedings in the related European patent EP 1 179 180).	
	50	VARNDELL, I.M. (1984) "Visualisation of messenger RNA directing peptide synthesis by <i>in situ</i> hybridization using a novel single-stranded cDNA probe" <i>Histochemistry</i> 81:597-601 (document O35 from the European opposition proceedings in the related European patent EP 1 179 180).	

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